Implementing an AI-based Game Commentator for Cooperative Computer Games

Master - This thesis focuses on developing a game commentator for a cooperative environment inspired by the multi-player game "Overcooked". The commentator shall provide real-time verbal commentary by inferring and verbalizing hypotheses about players' goals, plans, and beliefs. For example, if a player moves towards the tomato counter, the commentator might say, "Player X probably wants to cook a tomato soup." The system may also integrate cooperative elements, such as recognizing when a player needs assistance from another player.

Tasks

- Develop algorithms to infer goals, plans, and beliefs of players based on their actions.
- Implement a real-time commentary system using LLMs or template-based methods.
- Integrate cooperative elements to recognize and verbalize team dynamics.
- Test and evaluate the commentator system within the cooperative cuisine environment.

Your Profile / Learning Goals

- Interest in natural language processing, especially large language models.
- Understanding of game design and player behavior analysis.
- Proficiency in programming languages such as Python.
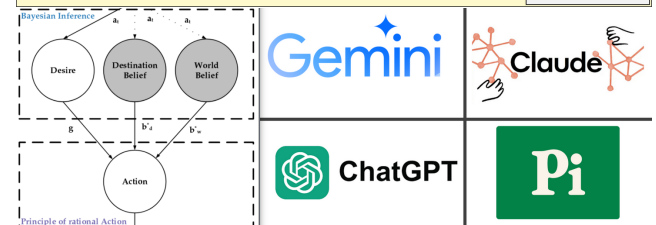
Interested?

If you are interested or have further questions, please send an email to
`fschroeder@techfak.uni-bielefeld.de.`